UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT E. SMITH, III

Appeal 2007-1748
Application 10/679,908
Technology Center 3600

Decided: September 27, 2007

Before TERRY J. OWENS, LINDA E. HORNER, and JOSEPH A. FISCHETTI, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1-9. We have jurisdiction under 35 U.S.C. § 6(b) (2002). This appeal arises from the Examiner's Final Rejection, mailed June 29, 2005.

Appellant filed an Appeal Brief in support of the appeal on November 23, 2005. An Examiner's Answer to the Appeal Brief was mailed on March 7, 2006. A Reply Brief was filed on May 5, 2006.

SUMMARY OF DECISION

We AFFIRM-IN-PART and ENTER A NEW GROUND OF REJECTION PURSUANT TO 37 C.F.R. § 41.50(b).

THE INVENTION

Appellant claims a hydraulic coupling used in undersea drilling and production applications which is said to involve an alignment system designed to provide proper alignment when the male and/or female member of a hydraulic coupling is attached to a manifold plate (Specification 1: ¶0001).

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. An undersea hydraulic coupling member comprising:

(a) a tail;

b) at least one substantially rigid positioning member associated with the tail, wherein the substantially rigid positioning member is in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate.

THE REJECTION

The Examiner relies upon the following as evidence of anticipation:

Smith, III (Smith) US 5,015,016 May 14, 1991

The following rejection is before us for review.

1. Claims 1-9 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Smith.

ISSUE

The anticipation issues before us depend on whether Appellant has shown that the Examiner erred in rejecting claims 1-9 under 35 U.S.C. § 102(b) as anticipated by Smith.

The first anticipation issue turns on whether Smith expressly or inherently discloses a "tail".

The second anticipation issue turns on whether Smith expressly or inherently discloses a substantially rigid positioning member in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate.

The third anticipation issue before us is whether Smith expressly or inherently discloses a retaining ring to connect to the tail to the manifold plate.

FINDINGS OF FACT

We find the following facts by a preponderance of the evidence:

Smith discloses a male element 13 having a tail defined by a cylindrical wall 74, the outer diameter of which is correspondingly sized relative to the diameter of an inner bore 61 in a sleeve member 22 of a female member 14 to thereby allow the male member to be inserted into the bore 61 (Smith, col. 7, ll. 30-34).

Smith discloses at least one substantially rigid positioning member 26 which is an annular seal (Smith, col. 6, l. 10). The at least one substantially rigid positioning member or annular seal 26 is received in and thus contacts an annular groove 67 formed as part of the surface of the inner bore 61 (Smith, col. 6, ll. 9, 10). The at least one substantially rigid positioning member 26 has a greater thickness than the depth of the groove and thus when positioned in the groove 67, protrudes slightly therefrom so as to inherently take up the clearance between the tail 74 and the inner surface of the bore 61 (Smith, col. 6, ll. 16-20).

The tail 74 in Smith is associated by contact with the at least one substantially rigid positioning member 26 when the tail 74 of the male member 13 is inserted into the receiving bore 61 (Smith col. 6, ll. 9-14, Fig. 6).

We find that: 1. the tail 74 of the male member 13 in Smith is configured so as to be capable of being easily inserted into a bore opening in a manifold diametrically sized relative to the diameter of the tail 74 in Smith to slide within it, and 2. that the substantially rigid positioning member 26 of Smith is likewise capable of being located in such a bore opening in a manifold as a clearance take-up and thereby be associated with the tail once it is inserted into the opening.

Smith's substantially rigid positioning member 26 is: 1. annular (Smith, col. 6, l. 10); 2. it is used for sealing (Smith, col. 6, l. 10); and 3. it is made of synthetic elastomer (Smith, col. 6, l. 16).

Smith discloses that the retaining ring 24 can be a snap ring (Smith, col. 6, l. 26).

Although Smith does not disclose using a retaining clip to connect the male member 13 to the receiving member 14, it does disclose using a retaining clip 24 housed within an annular groove 34 in the bore 31 of body 21 of the two-part receiving member 14 to hold the sleeve 22 in place relative to the main body 21 of the two-part receiving member 14 (Smith, col. 6, ll. 21-32 and col. 8, ll. 46-48).

Smith discloses that the opening 61 in the member 14 includes an inclined centering wall 62a at the receiving end thereof (Smith, col. 5, ll. 48-50) which helps the tail 74 to easily fit through the opening 61.

PRINCIPLES OF LAW

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 827 (1987).

A claimed invention is not patentable if the subject matter of the claimed invention would have been obvious to a person having ordinary skill in the art. 35 U.S.C. § 103(a); *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966).

During prosecution the PTO gives claims their "broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

We determine the scope of the claims in patent applications "not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, 75 USPQ2d 1321, 1329 (Fed. Cir. 2005)(en banc) (quoting *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004)). We must be careful not to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *See Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875, 69 USPQ2d 1865, 1868 (Fed. Cir. 2004):

> Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim limitations that are not a part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.

The challenge is to interpret claims in view of the specification without unnecessarily importing limitations from the specification into the claims. *See E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003).

ANALYSIS

We affirm the rejection of claims 1-3, under 35 U.S.C. § 102(b) as being anticipated by Smith. We cannot sustain the rejection of claims 4-9 under 35

U.S.C. § 102(b), but enter a new ground of rejection against claims 4-9 under 35 U.S.C. § 103(a) based on Smith alone.

Appellant first argues that the description of the "tail" as set forth by the Specification differs from what is disclosed in Smith as the cylindrical portion 74 of the male member 13, and thus the rejection under 35 U.S.C. § 102(b) is improper (Appeal Br. 3, 4).

We reject this argument because the Specification describes characteristics of the tail which are congruent with those of the cylindrical portion 74 of the male member 13 in Smith. For example, the Specification describes the tail as being sized diametrically to fit through at least one precut hole (Specification 2: ¶0006). As found *supra*, this relative sizing similarly occurs in Smith as between the cylindrical tail 74 of the male member 13 and the corresponding bore 61 in the receiving member 22 thereby allowing the tail 74 to be inserted into receiving bore 61 (Smith, col. 7, ll. 31-32). Further, it is argued by Appellant that the Specification describes the tail as having a "clearance between the outer diameter of the tail and the inner diameter of the hole ... such that the tail will fit easily through the hole" (Appeal Br. 4). However, as found *supra*, in Smith, the cylindrical tail portion 74 of the member 13 is likewise sized diametrically smaller than the corresponding bore diameter 61 so as to be inserted into the bore 61 (Smith, col. 7, ll. 30-32) in such a way that a seal 26 is needed to take up the clearance (Smith, col. 6, ll. 9-14, 16-20).

The term "fit easily through" as used in the independent claims is a relative term which we reasonable interpret to be achieved by Smith given that the opening 61 includes an inclined centering wall 62a at the receiving end thereof (Smith, col. 5, ll. 48-50) which helps the tail 74 to easily fit through the opening 61.

Appellant most notably argues that the "[1] [p]robe handle 72 of the coupling disclosed in Smith is the 'tail' of that coupling's male member and [2] probe handle 72 has no associated 'substantially rigid positioning member' as required by claims 1 - 9" (Appeal Br. 4-5). These arguments however assume that because the end 72 of Smith connects to a manifold (Smith, col. 7, l. 9), it must be read as the tail because a manifold is required by the claims and the connection to it determines what end of the male member 13 of Smith is the tail (Appeal Br. 4). We disagree.

It is our interpretation that the phrase "wherein the substantially rigid positioning member is in contact with the inner bore of a manifold plate when the tail is inserted through the manifold plate" is a functional limitation because it describes how the at least one substantially rigid positioning member 26 functions when used, in this case, as within a bore in a manifold. We thus find that: 1. the tail 74 of the male member 13 in Smith is configured so as to be capable of being easily inserted into a bore opening in a manifold diametrically sized relative to the diameter of the tail 74 in Smith to slide within it, and 2. that the substantially rigid positioning member 26 of Smith is likewise capable of being located in such a bore

in a manifold as a clearance take-up and thereby be associated with the tail once the tail is inserted into the opening.

Appellant's Arguments Raised in the Reply Brief:

Regarding claim 2, Appellant argues that element 26 in Smith is described as an "annular or axial soft seal" whereas, seals in hydraulic couplings that engage the male member about its circumference "'generally resemble O-rings.' {[Smith] col. 1; lines 26-32}" (Reply Br. 2). However, we interpret this reference to O-rings in the Background of Smith to be simply another form of nomenclature for what is later described in the Detailed Description as an annular seal 26 (Smith, col. 6, ll. 9-20) Further, *Webster's Collegiate Dictionary Tenth Edition* (1996) defines "O-ring" as: a ring (as of synthetic rubber) used as a gasket. As found *supra*, Smith's element 26 meets this definition because: 1. it is annular (Smith, col. 6, l. 10) and thus is a ring; 2. it is used for sealing, and thus is a gasket (Smith, col. 6, l. 10); and 3. it is made of synthetic elastomer or, synthetic rubber (Smith, col. 6, l. 16).

Appellant next argues concerning claim 3, that in Smith, "annular soft seals 26 and 27 are of a relatively pliable material, for example, rubber or synthetic elastomer {col. 6; lines 14-16}" (Reply Br. 2). But this statement fails to advance Appellant's position in that it only restates exactly what Smith discloses, which is that the annular seal 26 is made of natural or synthetic elastomer as required by the claims (Smith, col. 6, l. 16).

Regarding the arguments advanced with respect to claims 4-6, we agree with Appellant that the requirement of a retaining ring of claim 4, and as required by claim 7, is not met by the coupling structure of the male member 13 in Smith. This is because, even in the context of the tail 74 being capable of connecting to a manifold plate, the tail 74 in Smith does not carry a retaining ring to effect this function. Thus, the rejection of claims 4-6 cannot be sustained under 35 U.S.C. §102(b).

Since claim 7 also contains the retaining ring limitation of claim 4, we likewise cannot sustain the rejection of claims 7-9 for the same reason.

New Ground of Rejection:

We reject claims 4-9 under 35 U.S.C. § 103(a) as being unpatentable over Smith.

Although Smith does not disclose using a retaining clip, as required by claims 4 and 7, for connecting the male member 13 to the receiving member 14, it does disclose, as found *supra*, using a retaining clip 24 housed within an annular groove 34 in the bore 31 of sleeve 21 of the two-part receiving member 14 to hold and/or limit axial movement of the sleeve 22 relative to the main body 21 of the two-part receiving member (Smith col. 6, ll. 21-32).

A person with ordinary skill in the art would know to use the retaining ring and annular groove connection, as taught by elements 24 and 34 in Smith, to axially hold the male and receiving members 13 and 14 together by modifying the

cylindrical tail portion 74 of the male member 13 of Smith with such a ring and groove mechanism to limit axial movement of the tail 74 once it is inserted into a receiving opening to effect coupling. Further, such a modified tail structure in Smith would be capable of being inserted into a receiving opening in a manifold and held in place by the action of the retaining ring.

Claim 5 recites the retaining ring being held in place by a snap ring. As found *supra*, Smith discloses that the retaining ring 24 can be a snap ring (Smith, col. 6, l. 26).

The feature of claim 6 of providing for two grooves to accommodate varying plate thicknesses cannot be seen as an unobvious feature in that common sense dictates that groove placement must be located coincidentally with an abutment surface on the plate or within a receiving opening to effect a locking connection. The application of common sense may control the reasoning to combine prior art teachings. *See KSR*, 127 S.Ct. at 1742, 82 USPQ2d at 1397.

Since the subject matter of claims 8 and 9 is the same as that recited in claims 2 and 3, respectively, our reasons for finding claims 8 and 9 unpatentable are the same as set forth *supra*.

CONCLUSIONS OF LAW

We conclude:

1. We sustain the Examiner's rejection of claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Smith.

2. We will not sustain the Examiner's rejection of claims 4-9 under 35 U.S.C. § 102(b) as being anticipated by Smith.

3. We enter a new grounds of rejection for claims 4-9 under 35 U.S.C. § 103(a) as unpatentable over Smith.

Appellant is not entitled to a patent containing the claims on appeal.

DECISION

The decision of the Examiner to reject claims 1-3 is AFFIRMED. The decision of the Examiner to reject claims 4-9 is REVERSED. We enter a new ground of rejection of claims 4-9 under 35 U.S.C. § 103(a) as unpatentable over Smith. 37 C.F.R. § 41.50(b) (2006).

It is hereby ORDERED that within *two (2) months* from the date of our decision Appellants may further prosecute the application on appeal by exercising one of the two following options:

1. Request that prosecution be reopened by submitting an amendment or evidence or both. 37 C.F.R. § 41.50(b)(1) (2006).

2. Request rehearing on the record presently before the Board. 37 C.F.R. § 41.50(b)(2) (2006).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED-IN-PART; 37 C.F.R. § 41.50(b)

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